

Amendment to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): In a frequency band, a method of structured intelligent frequency hopping, said method comprising:

sampling a plurality of channels in ~~the frequency band~~ an original hopping sequence;

identifying each channel in the plurality of channels as a good channel or a bad channel as a function of a predetermined factor including traffic type; and

creating a new structured channel hopping sequence by assigning the good channels to a good window and the bad channels to a bad window by using an adaptive frequency hopping scheme;

hopping from one of the good channels to another one of the good channels until the good window has been used;

using the bad channel based on a hierarchy of traffic types; and

hopping from one of the bad channels to another one of the bad channels until the bad window has been used.

Claim 2 (original): The method of claim 1 wherein sampling the plurality of channels samples all channels available to a network.

Claim 3 (original): The method of claim 1 wherein the good channel is defined as a channel having at least a predetermined Quality Level of Service.

Claim 4 (original): The method of claim 1 wherein the bad channel is defined as a channel having less than a predetermined Quality Level of Service.

Claim 5 (previously presented): The method of claim 1 wherein each good and bad window has at least four slots to which the channels may be assigned.

Claim 6 (previously presented): The method of claim 1 wherein each good and bad window has an even number of slots to which the channels may be assigned.

Claim 7 (original): The method of claim 1 further comprising determining a ratio of the good channels in the band to the bad channels in the band.

Claim 8 (original): The method of claim 7 further comprising assigning a first size to the good window, and a second size to the bad window, such that the ratio of the size of the good window to the size of the bad window is the same as the ratio of the good channels in the band to the bad channels in the band (the ratio).

Claim 9 (original): The method of claim 7 further comprising assigning a first size to the good window, and a second size to the bad window, such that the ratio of one plus the size of the good window to the size of the bad window is the same as the ratio of the good channels in the band to the bad channels in the band (the ratio).

Claim 10 (original): The method of claim 7 further comprising the act of assigning a first size to a good window, and a second size to a bad window, such that the ratio of the size of the good window to one plus the size of the bad window is the same as the ratio of the good channels in the band to the bad channels in the band (the ratio).

Claims 11 - 13 (cancelled).

Claim 14 (previously presented): The method of claim 1, further comprising assigning the good channel to the good window, when a good window is being generated.

Claim 15 (previously presented): The method of claim 1, further comprising the act of detecting the bad channel, and assigning the bad channel to a bad window, when a bad window is being generated.

Claim 16 (previously presented): The method of claim 14, further comprising the act of detecting the bad channel, and ignoring the bad channel, when the good window is being generated.

Claim 17 (previously presented): The method of claim 15, further comprising the act of detecting the good channel, and ignoring the good channel, when the bad window is being generated.

Claim 18 (Cancelled).

Claim 19 (Previously Presented): A method of intelligent frequency hopping, comprising:

sampling channels of a frequency band;

identifying each channel in the frequency band as a good channel or a bad channel;

determining a ratio of the good channels to the bad channels (the ratio);

assigning a first size to a good window, and a second size to a bad

window, such that the ratio of the size of the good window to the size of the bad window is the same as the ratio; and

assigning a plurality of the good channels to the good window and a plurality of the bad channels to the bad window by an adaptive frequency hopping scheme.

Claim 20 (original): A method of intelligent frequency hopping, comprising:

sampling channels of a frequency band;

identifying each channel in the frequency band as a good channel or a bad channel;

determining a ratio of the good channels to the bad channels (the ratio);

assigning a first size to a good window, and a second size to a bad window, such that the ratio of the size of the good window to the size of the bad window is the same as the ratio;

assigning a plurality of the good channels to the good window and a plurality of the bad channels to the bad window; and

using all of the channels in the good window before using any channels in the bad window.

21 (Previously Presented) The method of claim 1, further comprising:

determining a hopping sequence comprising a good window including $2n$ good channels followed by a bad window of $2m$ bad channels, wherein n is the number of good channels and m is the number of bad channels in the frequency band.